

PROBE TIP ALIGNMENT FOR PRECISION LIQUID HANDLER

ABSTRACT OF THE DISCLOSURE

[0044] A probe drive system of a precision liquid handler sequentially inserts probe tips of a multiple probe array into a locator well at a known position on a locator bed. The position of each probe tip is determined by driving the probe tip into contact with points on the side wall of the locator well and sensing the contracts. The positions of the probe tips are mapped and checked for skew of the probe array. The probe tip positions are overlaid to determine probe tip scatter. If a probe tip is excessively misaligned, it is inserted into the locator well and driven against the side wall to bend the probe and reduce the misalignment of the probe tip. The center of the probe tip scatter is determined and is used by the probe drive system as a global correction factor. Probe tips with known positions are inserted into spaced apart locator wells to detect skew of the locator bed.